Mixed Learner Research Teams
Effects on Research Knowledge, Attitudes, and Productivity
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Introduction
Osteopathic medical schools rank last among 17 health professions schools for receipt of NIH grant funding, and allopathic schools receive 800 times more research funding than osteopathic schools. There is a critical need to address this deficiency. Here, we explore how mixed learner teams might provide one solution.

Methods
We recruited mixed learner research teams from constituents within OSU-COM. “Learners” included clinical faculty, fellows, residents, and medical students. In total, 32 learners on 7 teams participated in this project.

Training
- All learners participated in systematic review training developed by the Cochrane Collaboration
- All teams had a mix of clinical faculty, residents, and students

Study Design (Single Arm; Pre/Post)
- Prior to training, students and residents were assessed at baseline for systematic review knowledge (a bespoke tool), attitudes (Attitude toward Research Scale), and research self-efficacy (Research Self-Efficacy Scale)
- Following study completion, we collected the same data.

Data Analysis and Results
We used descriptive statistics to summarize the data. Given the small sample size, we tested the equality of paired medians using the Wilcoxon signed-rank test. Data were analyzed using Stata 13.1:

A. We published 5 studies in peer reviewed journals, had 10 conference presentations. One study is under review.
B. We found significant differences between pre- and post-scores on knowledge and self-efficacy but not interest.

Productivity

<table>
<thead>
<tr>
<th></th>
<th>Median (Pre)</th>
<th>Median (post)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>2</td>
<td>6</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Interest</td>
<td>5.45</td>
<td>4.90</td>
<td>ns</td>
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<tr>
<td>Self-Efficacy</td>
<td>25.20</td>
<td>28.35</td>
<td>&lt;.05</td>
</tr>
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</table>

Results of Wilcoxon Signed-Rank Test

Conclusion
Our research findings suggest that, overall, mixed learner teams can work together effectively to produce positive outcomes.

- Two teams in our sample terminated projects, owing to personality conflicts and lack of communication
- It is essential for teams to have strong leaders who communicate effectively and adhere to deadlines.
- This pilot test may be used for a larger scale study

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References

- Health.okstate.edu
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